

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listing, of claims in the application.

**Listing of Claims:**

1. (Currently Amended) A server-client network system for a genotyping analysis on a target sample, the server-client network system comprising:

a server including databases required for the genotyping analysis ~~and providing the databases to a client~~; and

~~at the client receiving the results of a biochip test on the target sample using a biochip, accessing the databases, and performing the genotyping analysis on the target sample with reference to the databases and storing results of the genotyping analysis in the client provided from the server.~~

2. (Currently Amended) The server-client network system of claim 1, wherein the accessed databases comprise:

a biochip identifier and layout database storing information on ~~an~~the identifier and layout of the biochip;

an analysis algorithm database storing algorithms required for the genotyping analysis; and

a quality control criteria database.

3. (Currently Amended) The server-client network system of claim 1, wherein the accessed databases ~~stored in the server~~ are built up from statistical data for ~~the~~ results of tests on a number of patient and reference samples using the biochip.

4. (Currently Amended) The server-client network system of claim 2, wherein the accessed databases ~~stored in the server~~ are built up from statistical data for ~~the~~ results of tests on a number of patient and reference samples using the biochip.

5. (Currently Amended) The server-client network system of claim 1, wherein the client comprises:

an optical scanning system through which the results of the biochip test on the target sample are received; and

an identifier recognizer which recognizes ~~an~~the identifier of the biochip.

6. (Currently Amended) The server-client network system of claim 1, wherein the client comprises an engine ~~for~~performing logical functions including:

~~a function of detecting~~ ~~an~~the identifier of the biochip;

~~a function of selecting~~ databases corresponding to the identifier of the biochip;

~~a function of selecting~~ a database position mode from between a server mode and a local replication mode;

~~a function of downloading~~ the databases corresponding to the identifier of the biochip from the server if the local replication mode is selected and it is determined that the databases do not exist in the client; and

~~a function of performing~~ a genotyping analysis on the target sample with reference to the downloaded databases if the local replication mode is selected or performing a genotyping analysis on the target sample with reference to the databases stored in the server if the server mode is selected.

7. (Currently Amended) The server-client network system of claim 2, wherein the client comprises an engine ~~for~~performing logical functions including:

~~a function of detecting~~ the identifier of the biochip;

~~a function of selecting~~ databases corresponding to the identifier of the biochip;

~~a function of selecting~~ a database position mode from between a server mode and a local replication mode;

~~a function of downloading~~ the databases corresponding to the identifier of the biochip from the server if the local replication mode is selected and it is determined that the databases do not exist in the client; and

~~a function of performing~~ a genotyping analysis on the target sample with reference to the downloaded databases if the local replication mode is selected or performing a genotyping

analysis on the target sample with reference to the databases stored in the server if the server mode is selected.

8. (Currently Amended) The server-client network system of claim 7, wherein the ~~function of performing the~~ genotyping analysis on the target sample comprises:

- ~~a function of~~ reading the biochip identifier and layout database;
- ~~a function of~~ reading the results of the test on the target sample input via ~~an~~ the optical scanning system;
- ~~a function of~~ linking the results of the test on the target sample to spot position information stored in the biochip identifier and layout database;
- ~~a function of~~ reading the quality control criteria database;
- ~~a function of~~ screening out failed spots from among the results of the biochip test based on the quality control criteria database;
- ~~a function of~~ reading the analysis algorithm database;
- ~~a function of~~ performing ~~the~~ a genotyping analysis on the target sample with reference to the analysis algorithm database; and
- ~~a function of~~ storing and/or displaying the results of the genotyping analysis.

9. (Currently Amended) A computer readable medium for a server-client network system for genotyping analysis, the computer readable medium ~~including~~ having computer executable instructions for a client to perform logical operations comprising:

- receiving databases required for a genotyping analysis from a server and receiving results of a biochip test on a target sample; and
- performing a genotyping analysis on the target sample using the results of the biochip test on the target sample with reference to the databases and storing results of the genotyping analysis in the client.

10. (Currently Amended) The computer readable medium of claim 9, wherein the received databases comprise:

- a biochip identifier and layout database storing information on ~~an~~ the identifier and layout of the biochip;

an analysis algorithm database storing algorithms required for genotyping analysis; and  
a quality control criteria database.

11. (Currently Amended) The computer readable medium of claim 10, wherein the ~~step of receiving the databases comprises logical steps including:~~

detecting the identifier of the biochip;  
selecting databases corresponding to the identifier of the biochip;  
selecting a database position mode from between a server mode and a local replication mode; and  
downloading the databases corresponding to the identifier of the biochip from the server if the local replication mode is selected and it is determined that the databases do not exist in the client, and

wherein the step of performing the genotyping analysis comprises logical steps including:

reading the biochip identifier and layout database from among the databases stored in the server if the server mode is selected or reading a biochip identifier and layout database from among the downloaded databases if the local replication mode is selected;  
reading the results of the biochip test on the target sample input via an optical scanning system;  
linking the results of the biochip test on the target sample to spot position information stored in the biochip identifier and layout database;  
reading the quality control criteria database;  
screening out failed spots from among the results of the biochip test based on the quality control criteria database;  
reading the analysis algorithm database;  
performing a genotyping analysis on the target sample based on the analysis algorithm database; and  
storing and/or displaying the results of the genotyping analysis.

12. (New) A method of performing a genotyping analysis on a target sample, the method comprising:

- a client receiving results of a biochip test on the target sample using a biochip;
- the client accessing databases stored on a server;
- the client performing the genotyping analysis with reference to the accessed databases;

and

- the client storing results of the genotyping analysis in the client.

13. (New) The method of claim 12, wherein the accessed databases comprise:

- a biochip identifier and layout database storing information on the identifier and layout of the biochip;
- an analysis algorithm database storing algorithms required for genotyping analysis; and
- a quality control criteria database.

14. (New) The method of claim 13, wherein the accessing databases comprises:

- detecting the identifier of the biochip;
- selecting databases corresponding to the identifier of the biochip;
- selecting a database position mode from between a server mode and a local replication mode; and
- downloading the databases corresponding to the identifier of the biochip from the server if the local replication mode is selected and it is determined that the databases do not exist in the client; and

- wherein the performing the genotyping analysis comprises:
  - reading the biochip identifier and layout database from among the databases stored in the server if the server mode is selected or reading a biochip identifier and layout database from among the downloaded databases if the local replication mode is selected;
  - reading the results of the biochip test on the target sample input via an optical scanning system;
  - linking the results of the biochip test on the target sample to spot position information stored in the biochip identifier and layout database;
  - reading the quality control criteria database;

screening out failed spots from among the results of the biochip test based on the quality control criteria database;

reading the analysis algorithm database;

performing a genotyping analysis on the target sample based on the analysis algorithm database; and

storing and/or displaying the results of the genotyping analysis.